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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/220,223 | 12/23/1998 | TOSHIO KOBAYASHI | 20389/81866 | 3786 |
| 7590 | 05/02/2006 | | EXAMINER | |
| Michael S Gzybowski Butzel Long 350 South Main Street Suite 300 Ann Arbor, MI 48104 | | | COLE, ELIZABETH M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1771 | |
| DATE MAILED: 05/02/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|-------------------|------------------|--|
| Application No. | Applicant(s) | |
| 09/220,223 | KOBAYASHI ET AL. | |
| Examiner | Art Unit | |
| Elizabeth M. Cole | 1771 | |

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____.
2a) This action is FINAL. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-3 and 6-16 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
5) Claim(s) ____ is/are allowed.
6) Claim(s) 1-3, 6-16 is/are rejected.
7) Claim(s) ____ is/are objected to.
8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

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1. Claims 1-1-3, 6-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not teach that the protuberances are formed after the thermoplastic synthetic fibers and pulp fibers have been subjected to high velocity water jets which stabilize a texture of the mixture of thermoplastic synthetic fibers and pulp fibers so that as the protuberances are subsequently formed the thermoplastic synthetic fibers and pulp fibers are reoriented.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson, U.S. Patent No. 4,100, 324 in view of Radwanski et al, U.S. Patent No. 4,879,170. Anderson discloses a nonwoven fabric comprising meltblown microfibers and a pulp material. The microfibers have a diameter of 2-6 microns and have a length of about the same as or greater than a staple fiber, which seems to encompass the claimed range. (staple fibers are generally known to have a length of anywhere from 25-180 mm). See col. 2, lines 46-54. The pulp material may have a length of 0.5 –10

mm. See col. 2, lines 55-62. The pulp fibers are microfibers may be present in the claimed proportions. The nonwoven may have a basis weight within the claimed range. See example IX. The nonwoven is useful as an absorbent wipe. Anderson differs from the claimed invention because Anderson forms the embossed areas via heat bonding which may reduce the absorbency of the fabric at least at the embossed areas. Radwanski et al teaches that nonwoven fabrics may be hydroentangled on a mesh screen, forming wire or apertured plate in order to form embossments or protuberances without changing the properties such as absorbency, etc. of the fabric. See col. 6, line 64 – col. 7, line 17; col. 14, line 4-41; col. 23, lines 29-50. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the embossed pattern by hydroentangling the fabric. One of ordinary skill in the art would have been motivated to employ hydroentangling and a forming fabric rather than a heat embossing process in order to maintain the absorbency of the fabric even in the patterned areas. With regard to the amendment to claim 1 that the protuberances are formed after the thermoplastic synthetic fibers and pulp fibers have been subjected to high velocity water jets which stabilize a texture of the mixture of thermoplastic synthetic fibers and pulp fibers so that as the protuberances are subsequently formed the thermoplastic synthetic fibers and pulp fibers are reoriented, while Anderson does not teach hydroentangling, Radwanski clearly teaches that it is advantageous to hydroentangle the fabric in order to form protuberances so as to maintain the absorbency of the entire fabric, rather than forming fused areas by embossing. See 6, line 64- col. 7, line 17; col. 14, lines 4-41. With regard to the

limitation that the protuberances are formed by embossing and form non-fused areas, Radwanski teaches forming protuberances and teaches that the fibers within the protuberances are non-fused. Similarly, with regard to the steps of stabilizing the mixture with high pressure water jets before hydroentangling, the instant claims are drawn to a product, not a process of making. Therefore, the burden is on Applicant to show that the process differences result in an unobvious difference in the product, since if the mixture of Anderson is hydroentangled as taught by Radwanski, the claimed protuberances and non-fused areas will be formed and the web will be both stabilized and entangled by the hydroentangling step. With regard to the limitation that the fibers are reoriented when the protuberances are formed, since the protuberances are formed by moving the fibers the fibers will have a different orientation after the protuberances are formed, i.e., the fibers will be reoriented. Also, with regard to the stabilizing step, Radwanski teaches that the coform can be passed through the hydroentangling apparatus a number of times to completely entangle the coform. See col. 14, lines 29-32. Therefore, Radwanski teaches the stabilizing step since the first pass equates to the claimed stabilizing step. As previously stated, the instant claims are drawn to a product not a process and therefore the burden is on Applicant to show that any process differences result in an unobvious difference between the claimed produce and the prior art product.

3. Applicant's arguments filed 2/27/06 have been fully considered but they are not persuasive. Applicant argues that neither Anderson nor Radwanski teach the initial step of stabilizing. However, as set forth, since Radwanski teaches multiple passes of the

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coform can be made through the hydroentangling apparatus it appears that Radwanski does teach this step. Further, it is noted that the burden is on Applicant to show that any process differences which may exist result in an unobvious difference in the claimed product. Applicant states that the instant fabric is has more isotropic characteristics than the fabric of Radwanski. However, Applicant has not presented evidence in support of this assertion. Further it is noted that the fabric of Radwanski is described as having isotropic strength and isotropic stretch and recovery characteristics. See col. 4, lines 47-53. Therefore the rejection is maintained.

4. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571)

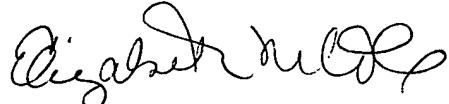
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272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.



Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c